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REMARKS

Claim Allowance

The Examiner's indication as to the allowability of claims 3-7, 11-15, 21-23, 26-30, 35-37, 43-45, 51-53, 55, 60-63, 67-69, 73 and 74 is noted with appreciation.

Claim Objections

The Examiner has objected to claims 2, 6 – 7, 11, 53, 64 and 69 because of informalities. Applicants have amended claims 2, 6 – 7, 11, 53, 64 and 69 to correct the informalities.

Claim Rejections under 35 USC 102(e)

The Examiner has rejected Claims 1 – 2, 8 – 10, 16 – 20, 24 – 25, 31 – 34, 38 – 42, 46 – 50, 54, 56 – 59, 64 – 66, 70 – 72 and 75 under 35 USC 102(e) as being anticipated by Gerendai et al. (US Patent No. 6,629,285). Applicants respectfully disagree, but have nevertheless amended certain of the claims to highlight the distinction of the submitted claims over the Gerendai et al. patent.

Gerendai et al. discloses a method and a system for transferring a plurality of data packets in sequence from a sender to a receiver. The receiver transmits a message to the sender notifying the sender that an identified one of the plurality of the data packets is missing. The sender retransmits to the receiver the identified one of the plurality of data packets as missed, only when an elapsed time is greater than a predetermined time interval. See column 5, step (e) of claim 1 and column 6, step (e) of claim 11. The elapsed time is determined for the identified one of the plurality of the data packets. See column 5, step (b) of claim 1 and column 6, step (b) of claim 11. This is supported by the disclosure by Gerendai et al., column 3, lines 49 – 59. In the method and system of Gerendai et al., the sender checks the time elapsed since the transmission of each missing data packet listed in the negative acknowledgement (NACK) message received from the receiver. If the elapsed time for a missing data packet is less than a predetermined time interval, the sender will not retransmit the requested (missing) data packet. However, if the elapsed time for the missing data packet is greater than the predetermined time interval, then the sender will retransmit the missing data packet. Thus, in Gerendai et al., if the elapsed time determined after the transmission of each of data packets falls within the predetermined time interval, **no data packet** will be retransmitted from the sender to the receiver.

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In a sharp contrast, an apparatus and a method as claimed in the present application retransmit a data block within or by a determined time, in response to an absence of receipt of a message identifying the data block as having been successfully received by a receiver. The time is determined as referenced to the transmission of the data block, by a determining means or a timer. This is supported by the disclosure (e.g., page 6, lines 3 – 17 and page 9, line 8 to page 11, line 2 of the description). The present invention provides on-time delivery of transmitted data in order to satisfy specified QoS (Quality of Service) levels for various multimedia services. This is accomplished by ensuring that transmission of data packets from the transmitter to the receiver occurs within a specified delay bound for the data packets, so that no data packets or constituent parts of the data packets arrive at the receiver late. Thus, Applicants respectfully submit that the present invention claimed in the claims is differentiated from Gerendai et al.

Applicants have, however, amended the claims to further distinguish the claims from Gerendai et al. and for clarification of the present invention.

Amended claim 1 provides an apparatus for transmitting data blocks from transmitting means to a receiver. The apparatus includes determining means and retransmitting means. The determining means determines a time referenced to the transmission of the data block by the transmitting means. Within a predetermined time determined by the determining means, a data block is retransmitted to the receiver, in response to an absence of receipt of a message identifying the data block as having been successfully received by the receiver. Applicants respectfully submit that amended claim 1 is not anticipated by Gerendai et al. and amended claim 1 is patentable.

Amended or original claims 2 – 9 depend directly or indirectly on amended claim 1 with limitations to the features thereof and thus, claims 2 – 9 are also patentable.

Similarly, amended claim 10 provides a transmitter for transmitting data blocks from a transmitter circuit to a receiver. The transmitter includes a timer circuit for determining a time referenced to the transmission of the data block by the transmitter circuit. By a time determined by the timer circuit, the transmitter circuit retransmits a data block to the receiver, in response to an absence of receipt of a message identifying the data block as having been

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successfully received by the receiver. Applicants respectfully submit that amended claim 10 is not anticipated by Gerendai et al. and amended claim 10 is patentable.

Amended or original claims 11 – 23 depend directly or indirectly on amended claim 10 with limitations to the features thereof and thus, claims 11 – 23 are also patentable.

Similarly, amended claim 24 provides an apparatus for transmitting data over a network from a transmitter to a receiver. The apparatus includes a timer for determining a time referenced to the transmission of the data block by the transmitter. By a time determined by the timer, the transmitter retransmits a data block to the receiver, in response to an absence of receipt by the transmitter of a message from the receiver identifying the data block as having been successfully received by the receiver. Applicants respectfully submit that amended claim 24 is not anticipated by Gerendai et al. and amended claim 24 is patentable.

Amended or original claims 25 – 40 depend directly or indirectly on amended claim 24 with limitations to the features thereof and thus, claims 25 – 40 are also patentable.

Similarly, amended claim 41 provides a method for transmitting data blocks to a receiver. In the method, a time is determined as referenced to the transmission of the data block by the transmitting step. By a predetermined time, a data block is retransmitted to the receiver, in response to an absence of receipt of a message from the receiver identifying the data block as having been successfully received by the receiver. Applicants respectfully submit that amended claim 41 is not anticipated by Gerendai et al. and amended claim 41 is patentable.

Amended or original claims 42 – 56 depend directly or indirectly on amended claim 41 with limitations to the features thereof and thus, claims 42 – 56 are also patentable.

Similarly, amended claim 57 provides a method for transmitting data blocks from a transmitter to a receiver. In the method, the receiver sends the transmitter messages identifying successfully received data blocks. Also, a determining step determines a time referenced to the transmission of the data block by transmitting step. By a predetermined time determined by the determining step, a data block is retransmitted to the receiver, in response to an absence of receipt at the transmitter of a message from the receiver identifying the data block

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as having been successfully received by the receiver. Applicants respectfully submit that amended claim 41 is not anticipated by Gerendai et al. and amended claim 57 is patentable.

Amended or original claims 58 – 75 depend directly or indirectly on amended claim 41 with limitations to the features thereof and thus, claims 58 – 75 are also patentable.

By the present invention as claimed in the claims, a data block is retransmitted within or by a determined time, in response to an absence of receipt of a message from the receiver. Applicants respectfully submit that this feature patentably differentiate the present invention from Gerendai et al.

No fee is believed due for this submission. However, Applicant authorizes the Commissioner to debit any required fee from Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP. The Commissioner is further authorized to debit any additional amount required, and to credit any overpayment to the above-noted deposit account.

It is submitted that this application is now in condition for allowance, and action to that end is respectfully requested.

Respectfully submitted,

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